

Title (en)

A light diffraction hybridization assay.

Title (de)

Hybridisierungsprüfung unter Anwendung von Lichtbrechung.

Title (fr)

Essai d'hybridisation utilisant la diffraction de la lumière.

Publication

EP 0350073 A2 19900110 (EN)

Application

EP 89112493 A 19890707

Priority

US 21669188 A 19880707

Abstract (en)

The assay of the subject invention uses DNA sequences as probes in a nucleic acid hybridization diffraction assay, to detect specific DNA sequences in a sample. Diffraction assay methodologies are applied to determine the presence and amount of analyte. This invention involves a discovery in the area of supporting surfaces for a biogrid or biograting which provide greatly reduced non-specific hybridization and binding. A preferred process of this invention involves manufacturing a biograting for use in a light diffraction assay, and comprises adhering a uniform layer of hybridizing reagent comprising a nucleotide sequence on a smooth, solid surface and exposing the surface to UV radiation through a shadow mask with a diffraction grating pattern of lines to selectively deactivate the hybridizing reagent, leaving a biological diffraction grating design of lines of active hybridizing reagent. The smooth, solid surface is preferably selected from the group consisting of polysilicon and single crystalline silicon surfaces.

IPC 1-7

C12Q 1/68

IPC 8 full level

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CPC (source: EP US)

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Cited by

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